



Trino @ Apple

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Agenda

- Use-cases
- Trino as a Service
- Features
- Challenges
- OSS Roadmap

Data Platform



Data Engineers



Data Scientists



ML Engineers



Business Analysts

Data Science Environment

High quality insights and modeling

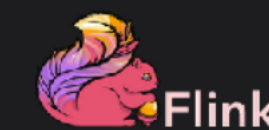


BI Tools

High quality insights

Data Processing & Analytics Engines

Large scale processing and job management at blazing speeds



High performance Data Lake

All your data, in one place ready to feed insights and analytics



Data Governance

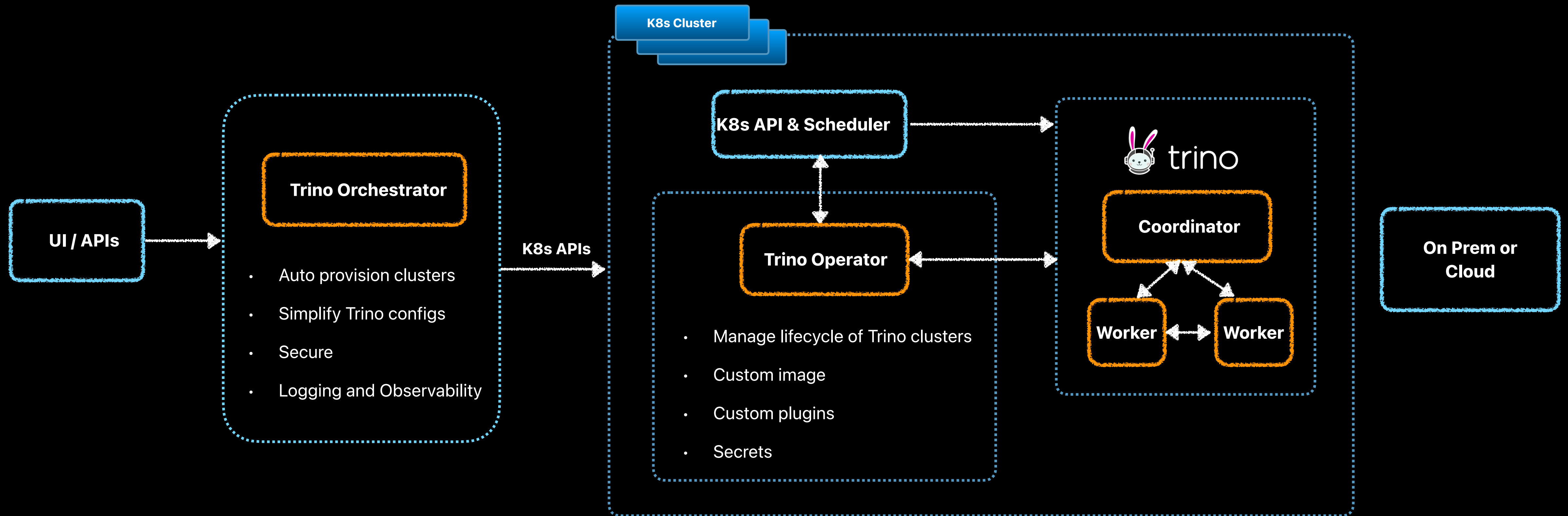
Compute & Storage

Usecases

- Adhoc Analytics
- Reporting
- Experimentation
- Federation

Trino as a Service

Trino Service Architecture



Tidbits

- Frequent Upgrades
- Popular Connectors
 - Iceberg, Hive, Cassandra
- Popular File Formats
 - Parquet, ORC

Features

General

- Auto Scale
- Multiple Authentication types
- JWT Multi-value audience claims [#13490](#)
- Event Listener

Iceberg & Hive Connectors

- Connector for In-house Metastore
 - Access Control
- Parquet Modular Encryption (PME) Read Support
- Object Store Integration

Iceberg Connector

- Metastore release lock failures causing table unusable [#14386](#)
- \$path hidden column [#11661](#)
- Support sort order in table create/alter
- Alter all iceberg table properties
- Metadata table to fetch table metadata json

Challenges

- Interoperability with other engines
 - Trino and Spark view incompatibility
 - Users expecting Trino to respect iceberg table properties
- Zero downtime and flexible routing of queries
- Trino not leveraging all Iceberg APIs/classes
- Pluggable optimizer rules and operators

OSS Roadmap

Iceberg

- Use Iceberg APIs where possible
- Support all partition transforms predicate pushdown
- Bucketed Joins
- Simple Aggregation Push Down

Iceberg

- Support for Iceberg views
- ETL - respect sort order for writes
- Leverage iceberg's parquet to arrow read path
- Data Caching

We are hiring!

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